## VULNERABILITY ESTIMATE FOR MISSION CO55C

## CONCLUSION:

There are no known surface-to-air missile defenses in North Vietnam or South China capable of interfering with Mission CO55C. The risk of a succussful U-2 intercept by a MIG-21 on this mission is less than 22%.

## GENERAL:

The MIG-15, 17, and 19 do not present a threat to the U-2 at 69,000 feet. Of these three fighter types, none can cruise supersonic and though the MIG-19 can exceed Mach 1 it can perform a dynamic climb to approximately 62,000 feet and cruise sub-sonic steady state at 59,000 plus or minus a 1000 feet. The MIG-19 does not have sufficient power to perform an effective ZOOM maneuver.

The MIG-21 has the capability of intercepting the U-2 at 69,000 feet by performing a ZOOM maneuver and launching an AA-2 Sidewinder type IR missile.

## AIR ORDER OF BATTLE FOR SOUTH CHINA:

There are eight airfields in South China and North Vietnam pertinent to Mission CO55C: Hanoi, Haiphong, (both in North Vietnam), Meng Tzu, Ssu Mac, Kunming, Lingshui (on Hainan Island), Sui Chi and Nanming. Nanming Namming the DRV border in South China is under construction and we do not believe it is capable of receiving aircraft at this time. MIG-21's have been noted in photography as having been at Nanming, Meng Tzu, Kunming, Lingshui and Shu Chi.

Based on the latest photography \_\_\_\_\_\_\_, we estimate approximately ten MIG-21's to be based among the airfields mentioned earlier. Of this number we estimate four MIG-21's to be in operational status and within range of Mission COGC. If this assumption is correct then the estimated risk of a successful MIG-21 intercept against the U-2 at 69,000 feet is less than 22%, this figure correct assuming whole intercept system including GCI is perfect throughout the intercept attempt. Red Chinese fighters have penetrated the DRV border on intercept attempts in the past, and we must assume they will continue to cross the border to intercept the U-2 in the future.

A request for a SAM search thirty nautical miles either side of planned track has been levied on NPIC. The results were negative and copies of the request and results may be found elsewhere in this report.

The film from mission CO45C of 19 Feb. has been reported on by and the IPIR contains no new or unusual items that affect the safety of mission CO55C.

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